

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

July 16, 2015

Ms. Susan Mackert
Virginia Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

**RE: Possum Point Power Station VPDES Permit No. VA0002071:
Notice of Planned Change**

Dear Ms. Mackert:

This is to serve as Dominion's Notice of the Planned Change relative to the existing VPDES Permit No. VA0002071 issued to Virginia Electric and Power Company on October 24, 2013. This Notice of Plan Change is being submitted in accordance with Condition J in Part II of the Station's VPDES Permit No. VA0002071. Specifically, Dominion is planning to reroute the Oil Water Treatment Basin (Internal Outfall 502) to the station's existing Low Volume Settling Ponds (Outfall 004). The reason for this change and supporting documentation are enclosed. As you will see, the change is minor from a water quality perspective and will have little or no impact on the overall characteristics of the discharge at Outfall 004.

We would like to implement the planned change as soon as possible and respectfully ask for your concurrence that this change can be made under the existing permit and does not necessitate a permit modification.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Cathy C. Taylor
Director, Electric Environmental Services

Enclosure

00010356

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Documentum

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Possum Point Power Station Notice of Planned Change: Rerouting of Internal Outfall 502 to the Low Volume Settling Ponds (Outfall 004)

Dominion is currently working to close five existing ash ponds at the Possum Point Power Station (Station) located in Dumfries, Virginia. The five ponds are designated A,B,C, D and E and their locations are shown on the attached figure. Ponds A, B, and C were originally three contiguous ponds that have been inactive since the 1960's and are being considered as a single pond (ABC) for closure purposes. Ponds ABC, D and E are scheduled for closure by April 2018 in accordance with the Coal Combustion Residual (CCR) regulations provided in 40 CFR Part 257, Subpart D. This notice concerns a rerouting of water in the station's oil water treatment basin (Outfall 502) from Ash Pond E to the station's Low Volume Settling Ponds, in order to facilitate closure of Ash Pond E.

Closure Activities and Rationale for Rerouting of Outfall 502

The station is currently permitted under VPDES permit No. VA0002071 to discharge wastewaters from Ponds D and E through Outfall 005 to an unnamed tributary of Quantico Creek. There is currently no discharge from Outfall 005. All flows that were previously collected in Pond E are now being collected and stored in Pond D. In addition, Pond D is being utilized to collect dewatered water and contact water from Pond ABC and Pond E. There is currently no discharge from Pond D.

Dominion is planning to clean-close Pond ABC and Pond E through the removal of ash from the ponds. To accomplish this, Dominion is mechanically dredging the ash from Pond E to Pond D. Dominion plans to begin mechanically dredging the ash from Pond ABC to Pond D in the near future and will be providing a separate notification related to this effort in accordance with our permit. In addition, in the near future we will be providing an amendment to our application for permit modification to address all additional changes resulting from the closure process.

Dominion is planning to close Pond D as an inactive CCR surface impoundment by leaving the CCR in place and constructing a cap over the ash surface in accordance with 40 CFR §257.100.b.1. Dominion plans to dewater the ash in Pond D to stabilize the ash, grade and place fill on the ash surface to create a slope that will drain and provide a stable surface on which to construct a geosynthetic and soil cap as required by the CCR regulation.

As part of the closure process, Dominion plans to reroute the Oil Water Treatment Basin (internal Outfall 502) to the station's existing Low Volume Settling Ponds (Outfall 004). The proposed reroute will reduce the amount of water that is ultimately stored in Pond D, thus facilitating our ability to close the ponds in accordance with our schedule. Temporary routing of process waters from internal Outfall 502 through the Low Volume Settling Ponds to Outfall 004 has been permitted in the past by the DEQ. This is recognized by Note 7 in the Water Flow Balance Line Diagram contained in the Fact Sheet prepared during the most recent permit reissuance (attached).

Discharges through both Outfall 502 and Outfall 004 are currently permitted as low volume wastewater streams under the existing Steam Electric Effluent Guidelines (40 CFR Part 423) and the characteristics of the two waters are similar. To demonstrate this similarity, comprehensive chemical analyses of the Oil Water Treatment Basin was performed and the results are provided in Table 1 (attached). Table 1 also includes, for comparison purposes, the quality data for Outfall 004 as reported in our 2013 Permit Reissuance Application, and a projected presumed quality of the combined discharge. The projected presumed quality of the combined discharge is estimated using the following mass balance calculations, as applicable:

$$\begin{aligned} \text{Combined Discharge Concentration} &= \left[\frac{mg}{L} \right] \\ &= \frac{Q_{004} \times \text{Concentration}_{004} + Q_{502} \times \text{Concentration}_{502}}{Q_{004} + Q_{502}} \end{aligned}$$

Where

Q_{004} = Long term average flow¹ at Outfall 004 = 2.02-MGD

Q_{502} = 30-day maximum flow¹ at Outfall 502 = 0.567-MGD

$\text{Concentration}_{004}$ = Reported concentration¹ at Outfall 004 = $\left[\frac{mg}{L} \right]$

$\text{Concentration}_{502}$ = Measured concentration² at Outfall 502 = $\left[\frac{mg}{L} \right]$

$$\text{Combined Discharge pH} = [S. U.] = -\log \left(\frac{Q_{004} \times 10^{-\text{pH}_{004}} + Q_{502} \times 10^{-\text{pH}_{502}}}{Q_{004} + Q_{502}} \right)$$

Where

pH_{004} = Reported pH¹ at Outfall 004 = [S. U.]

pH_{502} = Measured pH² at Outfall 502 = [S. U.]

The combined discharge concentration formula above takes into account the constituent level as well as the volumetric flow rate of each of the discharges, respectively, i.e., Outfall 502 and Outfall 004 waters as a weighted average. The combined pH concentration formula above similarly takes into account the pH as well as the volumetric flow rate of each of the discharges, respectively, as a weighted average. Please note that the latter equation is a conservative estimate that does not consider the complexities of other factors in the discharge such as alkalinity, hardness, etc. that may provide additional buffering capacity, i.e., resistance to changes in pH. These analyses demonstrate that the combined wastewater characteristics are consistent with those permitted for Outfall 004 under the existing permit.

¹ Per 2013 VPDES Permit Reissuance Application.

² Per test results on May 7, 2015 sample at Oil Water Treatment Basin.

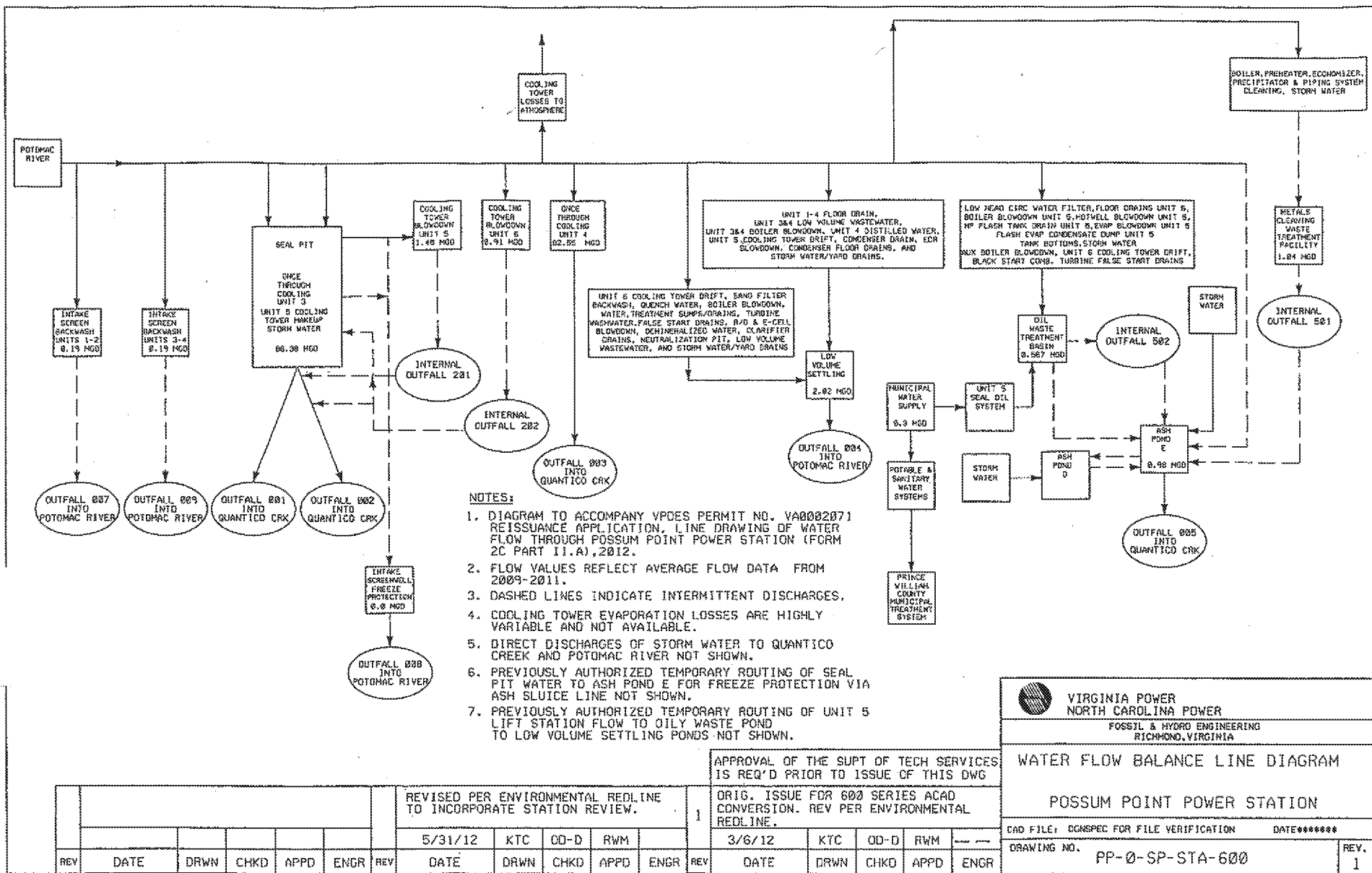


Table 1

Parameters	Units	Outfall 004		Oily Waste Internal Outfall 502	Projected Presumed Quality of Outfall 004 [Low Vol. Settling Ponds blended w/Oily Waste (Internal Outfall 502)]
		PRESUMED MAXIMUM DAY	PRESUMED LONG TERM AVERAGE	502 Discharge	
				5/7/2015	
Aluminum, Total	mg/L	< 0.09		0.082	< 0.09
Aluminum, Dissolved	mg/L	< 0.09		< 0.026	< 0.08
Antimony, Total	mg/L	< 0.001		< 0.00033	< 0.001
Antimony, Dissolved	mg/L	< 0.001		< 0.00066	< 0.001
Arsenic, Total	mg/L	< 0.003		< 0.0005	< 0.002
Arsenic, Dissolved	mg/L	< 0.003		< 0.001	< 0.003
Boron, Total	mg/L	0.03		< 0.016	< 0.03
Boron, Dissolved	mg/L			< 0.033	< 0.033
Barium, Total	mg/L	0.044		0.036	0.042
Barium, Dissolved	mg/L	0.033		0.031	0.033
Beryllium, Total	mg/L	< 0.0002		< 0.0001	< 0.0002
Beryllium, Dissolved	mg/L	< 0.0002		< 0.0001	< 0.0002
Cadmium, Total	mg/L	< 0.0003		< 0.00016	< 0.0003
Cadmium, Dissolved	mg/L	< 0.0003		< 0.00033	< 0.0003
Calcium, Total	mg/L			28	28
Calcium, Dissolved	mg/L			28.2	28.2
Chromium, Total	mg/L	< 0.001		< 0.00033	< 0.001
Chromium, Dissolved	mg/L	< 0.001		< 0.00066	< 0.001
Trivalent Chromium, Total	mg/L			< 0.01	< 0.01
Trivalent Chromium, Dissolved	mg/L			< 0.01	< 0.01
Hexavalent Chromium, Total	µg/L	< 5		< 0.052	< 4
Hexavalent Chromium, Dissolved	µg/L			< 0.052	< 0.052
Cobalt, Total	mg/L	< 0.0006		< 0.00083	< 0.0007
Cobalt, Dissolved	mg/L	< 0.0006		< 0.0016	< 0.0008
Copper, Total	mg/L	0.007		0.015	0.009
Copper, Dissolved	mg/L	0.004		0.0073	0.005
Iron, Total	mg/L	7.00		0.69	5.62
Iron, Dissolved	mg/L	0.09		0.093	0.09
Lead, Total	mg/L	< 0.001		< 0.00033	< 0.001
Lead, Dissolved	mg/L	< 0.001		< 0.00066	< 0.001
Lithium, Total	mg/L			< 0.016	< 0.016
Lithium, Dissolved	mg/L			< 0.033	< 0.033
Manganese, Total	mg/L	0.04		0.14	0.06
Manganese, Dissolved	mg/L	0.02		0.023	0.02
Magnesium, Total	mg/L	8.36		9.7	8.7
Magnesium, Dissolved	mg/L	8.17		9.6	8.5
Molybdenum, Total	mg/L	0.002		0.0045	0.003
Molybdenum, Dissolved	mg/L	0.002		0.0044	0.003
Mercury, Total	mg/L	< 0.0002		< 0.00016	< 0.0002
Mercury, Dissolved	mg/L	< 0.0002		< 0.00016	< 0.0002
Nickel, Total	mg/L	< 0.005		0.032	< 0.011
Nickel, Dissolved	mg/L	< 0.005		0.021	< 0.009
Selenium, Total	mg/L	< 0.003		< 0.00066	< 0.002
Selenium, Dissolved	mg/L	< 0.003		< 0.0016	< 0.003
Silver, Total	mg/L	< 0.0001		< 0.00033	< 0.0002

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Parameters	Units	Outfall 004		Oily Waste Internal Outfall 502	Projected Presumed Quality of Outfall 004 [Low Vol. Settling Ponds blended w/Oily Waste (Internal Outfall 502)]
		PRESUMED MAXIMUM DAY	PRESUMED LONG TERM AVERAGE	502 Discharge	
				5/7/2015	
Silver, Dissolved	mg/L	< 0.0001		< 0.00066	< 0.0002
Thallium, Total	mg/L	0.0006		< 0.00016	< 0.0005
Thallium, Dissolved	mg/L	0.0005		< 0.00033	< 0.0005
Zinc, Total	mg/L	< 0.01		0.02	< 0.01
Zinc, Dissolved	mg/L	0.013		0.043	0.020
Potassium, Total	mg/L			4	4
Potassium, Dissolved	mg/L			4	4
Sodium, Total	mg/L			66	66
Sodium, Dissolved	mg/L			66	66
Sulfate	mg/L	44.22		37.2	42.7
pH	pH Units	7.38		7.89	7.45
Specific Conductance	umhos/cm			568	568
Turbidity	NTU			0.19	0.19
Alkalinity, Total	mg/L			59	59
Ammonia-N	mg/L	0.18	0.06	0.108	0.16
Nitrate-N	mg/L	2.25	1.02	< 0.092	< 1.80
Nitrite-N	mg/L			< 0.11	
Oil/Grease Hexane Extractable	mg/L	< 5	< 5	< 0.5	< 4
Total Kjeldahl Nitrogen	mg/L			< 0.4	< 0.4
Total Nitrogen	mg/L			< 1.0	< 1.0
Phosphorus, Total	mg/L	0.17	0.06	0.1	0.2
Chloride	mg/L	55.34		111	67.5
Fluoride	mg/L	0.171		< 0.12	< 0.16
Hardness	mg/L	104.31		110	106
Total Dissolved Solids	mg/L	272.5		310	281
Total Suspended Solids	mg/L	23.5	4.3	10	21
Biochemical Oxygen Demand	mg/L	< 3.0		3.4	< 3.1
Chlorine, Total Residual	mg/L	< 0.1	< 0.1	0.12	< 0.1
Sulfide, Total	mg/L	< 0.05		< 0.35	< 0.12
Cyanide, Total	mg/L	< 0.01		< 0.00058	< 0.01
Aldrin	µg/L	< 0.05		< 0.0006	< 0.04
alpha-BHC	µg/L	< 0.05		< 0.00013	< 0.04
beta-BHC	µg/L	< 0.05		< 0.00016	< 0.04
delta-BHC	µg/L	< 0.05		< 0.00024	< 0.04
gamma-BHC	µg/L	< 0.05		< 0.00015	< 0.04
Chlordane	µg/L	< 0.2		< 0.013	< 0.2
4,4'-DDD	µg/L	< 0.1		< 0.00016	< 0.1
4,4'-DDE	µg/L	< 0.1		< 0.00016	< 0.1
4,4'-DDT	µg/L	< 0.1		< 0.00023	< 0.1
Dieldrin	µg/L	< 0.1		< 0.00013	< 0.1
Endosulfan I	µg/L	< 0.1		< 0.00028	< 0.1
Endosulfan II	µg/L	< 0.1		< 0.00014	< 0.1
Endosulfan Sulfate	µg/L	< 0.1		< 0.0002	< 0.1
Endrin	µg/L	< 0.1		< 0.00015	< 0.1
Endrin Aldehyde	µg/L	< 0.1		< 0.00031	< 0.1

Table 1

Parameters	Units	Outfall 004		Oily Waste Internal Outfall 502	Projected Presumed Quality of Outfall 004 [Low Vol. Settling Ponds blended w/Oily Waste (Internal Outfall 502)]
		PRESUMED MAXIMUM DAY	PRESUMED LONG TERM AVERAGE	502 Discharge	
				5/7/2015	
Heptachlor	µg/L	< 0.05		< 0.0003	< 0.04
Heptachlor Epoxide	µg/L	< 0.1		< 0.00016	< 0.1
Methoxychlor	µg/L	< 0.1		< 0.00026	< 0.1
Mirex	µg/L	< 0.1		< 0.00056	< 0.1
Total Polychlorinated Biphenyl	µg/L			0	0
Toxaphene	µg/L	< 5		< 0.0098	< 4
Aroclor-1016	µg/L			< 0.041	< 0.041
Aroclor-1221	µg/L			< 0.061	< 0.061
Aroclor-1232	µg/L			< 0.076	< 0.076
Aroclor-1242	µg/L			< 0.044	< 0.044
Aroclor-1248	µg/L			< 0.035	< 0.035
Aroclor-1254	µg/L			< 0.057	< 0.057
Aroclor-1260	µg/L			< 0.041	< 0.041
Azinphos Methyl	µg/L	< 1		< 0.34	< 1
Chlorpyrifos	µg/L	< 0.2		< 0.47	< 0.3
Demeton	µg/L	< 1		< 0.2	< 0.8
Diazinon	µg/L	< 1		< 0.27	< 0.8
Malathion	µg/L	< 1		< 0.21	< 0.8
Parathion	µg/L	< 1		< 0.31	< 0.8
Acrolein	µg/L	< 10		< 2.4	< 8.3
Acrylonitrile	µg/L	< 1.5		< 0.89	< 1.4
Benzene	µg/L	< 4.4		< 0.16	< 3.5
Bromodichloromethane	µg/L	< 2.2		< 0.13	< 1.7
Bromoform	µg/L	< 4.7		< 0.21	< 3.7
Bromomethane	µg/L	< 1.4		< 0.27	< 1.2
Carbon Tetrachloride	µg/L	< 2.8		< 0.24	< 2.2
Chlorobenzene	µg/L	< 6		< 0.11	< 5
Chlorodibromomethane	µg/L	< 3.1		< 0.22	< 2.5
Chloroform	µg/L	16.82		< 0.15	< 13
1,2-Dichlorobenzene	µg/L	< 5		< 0.2	< 4
1,3-Dichlorobenzene	µg/L	< 5		< 0.14	< 4
1,4-Dichlorobenzene	µg/L	< 5		< 0.15	< 4
1,2-Dichloroethane	µg/L	< 2.8		< 0.22	< 2.2
1,1-Dichloroethene	µg/L			< 0.17	< 0.17
trans-1,2-Dichloroethene	µg/L	< 1.6		< 0.12	< 1.3
1,2-Dichloropropane	µg/L	< 6		< 0.24	< 5
cis-1,3-Dichloropropene	µg/L			< 0.12	< 0.12
trans-1,3-Dichloropropene	µg/L			< 0.14	< 0.14
1,3-Dichloropropene, Total	µg/L	< 5.9		< 0.19	< 4.6
Ethylbenzene	µg/L	< 7.2		< 0.16	< 5.7
Methylene Chloride	µg/L	< 2.8		< 0.32	< 2.3
1,1,2,2-Tetrachloroethane	µg/L	< 6.9		< 0.22	< 5.4
Tetrachloroethene	µg/L	< 4.1		< 0.26	< 3.3
Toluene	µg/L	< 6		< 0.12	< 5
1,1,2-Trichloroethane	µg/L	< 5		< 0.3	< 4

Table 1

Parameters	Units	Outfall 004		Oily Waste Internal Outfall 502	Projected Presumed Quality of Outfall 004 [Low Vol. Settling Ponds blended w/Oily Waste (Internal Outfall 502)]
		PRESUMED MAXIMUM DAY	PRESUMED LONG TERM AVERAGE	502 Discharge	
				5/7/2015	
Trichloroethene	µg/L	< 1.9		< 0.21	< 1.5
Vinyl Chloride	µg/L	< 1.8		< 0.24	< 1.5
Acenaphthene	µg/L	< 5		< 0.33	< 4
Anthracene	µg/L	< 5		< 0.34	< 4
Benzidine	µg/L	< 5		< 22.5	< 9
Benzo(a)anthracene	µg/L	< 5		< 0.3	< 4
Benzo(a)pyrene	µg/L	< 5		< 0.36	< 4
Benzo(b)fluoranthene	µg/L	< 5		< 0.41	< 4
Benzo(k)fluoranthene	µg/L	< 5		< 0.38	< 4
Butylbenzylphthalate	µg/L	< 5		< 0.33	< 4
bis(2-Chloroethyl)ether	µg/L	< 5		< 0.35	< 4
bis(2-Chloroisopropyl)ether	µg/L	< 5		< 0.5	< 4
2-Chloronaphthalene	µg/L	< 5		< 0.34	< 4
2-Chlorophenol	µg/L	< 5		< 0.59	< 4
Chrysene	µg/L	< 5		< 0.35	< 4
Di-n-Butylphthalate	µg/L	< 5		< 0.31	< 4
Dibenzo(a,h)anthracene	µg/L	< 5		< 0.29	< 4
3,3-Dichlorobenzidine	µg/L	< 5		< 2.8	< 5
2,4-Dichlorophenol	µg/L	< 5		< 0.46	< 4
Diethylphthalate	µg/L	< 5		< 0.3	< 4
2,4-Dimethylphenol	µg/L	< 5		< 2.9	< 5
Dimethylphthalate	µg/L	< 5		< 0.38	< 4
2,4-Dinitrophenol	µg/L	< 5		< 2.3	< 4
2,4-Dinitrotoluene	µg/L	< 5		< 0.38	< 4
1,2-Diphenylhydrazine	µg/L	< 0.1		< 0.32	< 0.1
bis(2-Ethylhexyl)phthalate	µg/L	< 5		< 0.35	< 4
Fluoranthene	µg/L	< 5		< 0.25	< 4
Fluorene	µg/L	< 5		< 0.37	< 4
Hexachlorobenzene	µg/L	< 5		< 0.3	< 4
Hexachlorobutadiene	µg/L	< 5		< 0.29	< 4
Hexachlorocyclopentadiene	µg/L	< 5		< 1	< 4
Hexachloroethane	µg/L	< 5		< 0.32	< 4
Indeno(1,2,3-cd)pyrene	µg/L	< 5		< 0.29	< 4
Isophorone	µg/L	< 5		< 0.38	< 4
2-Methyl-4,6-dinitrophenol	µg/L			< 1.3	< 1.3
Nitrobenzene	µg/L	< 5		< 0.61	< 4
N-Nitrosodimethylamine	µg/L	< 5		< 0.45	< 4
N-Nitroso-di-n-propylamine	µg/L	< 5		< 0.54	< 4
N-Nitrosodiphenylamine	µg/L	< 5		< 1	< 4
Pentachlorophenol	µg/L	< 5		< 1.8	< 4
Phenol	µg/L	< 5		< 0.23	< 4
Pyrene	µg/L	< 5		< 0.35	< 4
1,2,4-Trichlorobenzene	µg/L	< 5		< 0.26	< 4
2,4,6-Trichlorophenol	µg/L	< 5		< 0.36	< 4
Kepone	µg/L	< 0.1		< 1.8	< 0.5

Table 1

Parameters	Units	Outfall 004		Oily Waste Internal Outfall 502	Projected Presumed Quality of Outfall 004 [Low Vol. Settling Ponds blended w/Oily Waste (Internal Outfall 502)]
		PRESUMED MAXIMUM DAY	PRESUMED LONG TERM AVERAGE	502 Discharge	
				5/7/2015	
FIELD PARAMETERS					
pH	pH_Units	7.38		8.52	7.48
Temperature	° C	34.6		22.38	31.9
Conductivity	µs/cm			566	566
Dissolved Oxygen	%			102.5	102.5
Dissolved Oxygen	mg/l			8.98	8.98
ORP	mv			143.7	143.7
Chlorine, Total Residual	ppm	< 0.1	< 0.1	0	< 0.1

Footnotes:

1) ND- Not detected above the laboratory detection limit.

2) NA- Not analyzed.

3) mg/L - milligrams per liter.

4) µg/L- micrograms per liter.

5) µS/cm - microsiemens/centimeter.

6) mv- millivolts.

7) ppm- parts per million.

8) ORP- Oxidation Reduction Potential.

9) Outfall maximum and long term average data is from the last permit application for reissuance of Possum Point's VPDES Permit.

10) pH of LVPS sample is from the final pond/cell and actual discharge to Outfall 004 would be adjusted to comply with permit limits.

11) Projected blended waters of Outfall 502 and Low Volume Settling Ponds is based on 30-day max flow of 0.567-MGD for the oily waste basin
& long term avg flow of 2.02-MGD for Outfall 004 (per Permit Reissuance App.).